

**50 CFR Part 17**

**Endangered and Threatened Wildlife  
and Plants; Proposed Endangered  
Status and Critical Habitat for *Gouania  
hillebrandii***

**AGENCY:** Fish and Wildlife Service,  
Interior.

**ACTION:** Proposed rule.

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**SUMMARY:** The service proposes to list a  
plant, *Gouania hillebrandii*, as an

County of Maui, Hawaii. The populations of this species are vulnerable to any substantial habitat alternation and face threats of browsing and trampling by livestock in at least one of these areas. A determination that *Gouania hillebrandii* is an Endangered species and designation of its Critical Habitat would implement the protection provided by the Endangered Species Act of 1973, as amended. Comments and related material from the public are solicited. The Service also requests information on environmental impacts that would result from listing *Gouania hillebrandii* as an Endangered species.

**DATES:** Comments from the public and the Hawaiian State agencies must be received by November 7, 1983. Public hearing requests must be received by October 24, 1983.

**ADDRESSES:** Comments or other materials should be sent to the Pacific Islands Administrator, U.S. Fish and Wildlife Service, P.O. Box 50167, Honolulu, Hawaii 96850. Comments and materials relating to this proposal are available for public inspection by appointment during normal business hours at the Service's Office of Endangered Species, 300 Ala Moana Boulevard, Room 6307, Honolulu, Hawaii.

**FOR FURTHER INFORMATION CONTACT:** Mr. Ernest Kosaka, Project Leader for Environmental Services, U.S. Fish and Wildlife Service, P.O. Box 50167, Honolulu, Hawaii 96850 (808/546-7530), or Mr. John L. Spinks, Jr., Chief, Washington Office of Endangered Species, U.S. Fish and Wildlife Service, Washington D.C. 20240 (703/235-2771).

#### SUPPLEMENTARY INFORMATION:

##### Background

The type specimen of *Gouania hillebrandii* was collected by the German physician and botanist William Hillebrand in August 1870. Since 1870, the taxon has been collected only occasionally (1910, 1943, 1955, 1966, 1978 and 1980). All collections prior to 1979 were probably from the dry gulches and ridges behind Lahaina, West Maui (St. John, 1969). Although the type specimen is labelled "Maui! gulches of Kula and Lahaina," no collections from the Kula region (East Maui) have been verified as *Gouania hillebrandii*. In 1979, Robert Hobdy and Rene Sylva of Maui discovered additional small stands of *Gouania hillebrandii* behind Olawalu, some 2 to 3 miles from the Lahaina population. Today, it is known only from Endangered species and to designate its Critical Habitat, under the authority contained in the Endangered Species Act of 1973, as amended. This plant is known from only 2 small areas located in the district of Lahaina, island and

two general areas on the west-facing slopes of Pa'upa'u and Lihau in the district of Lahaina, county and island of Maui, Hawaii.

No Hawaiian name has been recorded for this taxon. However, archaeological sites in the vicinity of present day populations and the highly developed botanical knowledge of the Hawaiians before European contact indicate that a Hawaiian name probably did exist but has been lost.

The plant is a shrub ranging from a few inches to 6 feet tall, often a single or sparsely branched stem when below 2 feet, but becoming more branched and rounded with increased height. Branches are slender and covered with a rust of ash-colored fuzz. Leaves are oval and oblong, 1½ to 2½ inches by ¾ to 1 inch, with ½ to 1 inch leaf stems, broadly pointed, entire (without toothed or lobed edges), dark green, fuzzy and pale below, thin and somewhat papery. Flowers are quite small and nearly white, quite fragrant, and borne on short fuzzy branching flower stalks that arise from the junction of the leaves with the stem. Flower stalks are 1 to 1½ inches long, and bear 3 to 5 flowers each. The tiny brown seeds are in small, 3-winged capsules covered with soft white fuzz.

Livestock and exotic insects pose serious threats to this native shrub. Browsing and trampling by domestic cattle have decimated this taxon, especially at Pa'upa'u, and will probably extirpate that population if continued. The introduced insect *Pinnaspis strachani* (hibiscus snow scale) now infests at least half of all known plants. Many of the most heavily infested plants have died.

Section 12 of the Endangered Species Act of 1973 directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened or extinct. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. On July 1, 1975, the Service published a notice in the **Federal Register** (40 FR 27823) of its acceptance of this report as a petition within the context of Subsection 4(c)(2) of the Act, and of its intention thereby to review the status of the plant taxa named within. On June 16, 1976, the Service published a proposed rule in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant taxa, including *Gouania hillebrandii*, to be Endangered species. This list was assembled on the basis of comments and data received by the Smithsonian Institution and the Service in response to House Document No. 94-51 and the July 1, 1975, **Federal Register** publication. *Gouania hillebrandii* was included in the July 1, 1975, notice and

the June 16, 1976, proposal. General comments on the 1976 proposal are summarized in an April 26, 1978, **Federal Register** publication (43 FR 17909).

The Endangered Species Act Amendments of 1978 (Pub. L. 95-632) required that all proposals over two years old be withdrawn. On December 10, 1979, the Service published a notice of the withdrawal of the June 16, 1976, proposal along with other proposals which had expired (44 FR 70796). At this time the Service is repropounding *Gouania hillebrandii*. Such repropounds were authorized by the 1982 Amendments to the Endangered Species Act. New information includes a detailed status report by a University of Hawaii botanist (Holt, 1982).

#### Summary of Factors Affecting the Species

Subsection 4(a)(1) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) states that the Secretary of the Interior shall determine whether any species is an Endangered species or a Threatened species due to one or more of the five factors described in that subsection.

These factors and their application to *Gouania hillebrandii* are as follows:

A. *The present of threatened destruction, modification or curtailment of its habitat or range.* Feral and domestic livestock (cattle and goats) have probably been the greatest threat historically to the habitat of *Gouania hillebrandii*. Their trampling removes vegetation and litter important to soil-water relations, compacts the soil and promotes erosion. Cutting of native trees and subsequent reforestation attempts have further altered the habitat at Pa'upa'u. Agricultural pressures have been relaxed at Lihau, but domestic cattle continue to graze and trample the Pa'upa'u habitat, promoting erosion, especially along ridge-top paths, and favoring the survival of the less palatable introduced plant species over native species.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Not applicable to this species.

C. *Disease or predation* (including grazing). Grazing has been a serious problem for the habitat of *Gouania hillebrandii*, as indicated under Factor A. above. Undiscovered populations have probably been eliminated before they could be found. Additionally, an insect herbivore, *Pinnaspis strachani* (hibiscus snow scale) has been present at Pa'upa'u at least since 1943, and is now present at Lihau. Many of the *Gouania hillebrandii* at Pa'upa'u have been killed by this insect. Finally, unknown chewing insects have caused

extensive leaf damage in populations monitored since about 1955.

D. *The inadequacy of existing regulatory mechanisms.* This species is not now the subject of any regulation.

E. *Other natural or man-made factors affecting its continued existence.* Exotic plant species, especially matted grasses and trees, may compete adversely with *Gouania hillebrandii*. Other factors of probable importance, such as pollinating organisms, need additional study before they can be identified.

#### Critical Habitat

The Act defines "Critical Habitat" as "(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of Section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species."

Proposed Critical Habitat for *Gouania hillebrandii* includes two zones of Lahaina District, island and County of Maui, Hawaii, as follows: (1) Pa'upa'u Zone—a quadrangular area of approximately 52 acres centered about one-half mile east of Lahainaluna School, on three ridges that form the south wall of Kanaha Stream valley; (2) Lihau Zone—approximately 60 acres of land divided among three circular areas of 0.1 mile radius (about 20 acres) each, lying between 800 ft and 1,700 ft of elevation on the west flank of Lihau Mountain above Olawalu cinder pits; one area centered at Pu'u Hipa Peak, and the two others centered about 0.7 miles southeast and south by southeast respectively from Pu'u Hipa Peak. Within the designated areas are irregular, smaller areas of primary habitat consisting of dry, exposed ridge crests and north-facing slopes down to about 160 ft below the crests, where strong prevailing winds exclude much of the competing exotic vegetation, allowing the wind-adapted *Gouania hillebrandii* to survive. In total, the Pa'upa'u Zone includes approximately 15 acres and the Lihau Zone approximately 20 acres of such primary habitat for this plant.

At this time, primary constituent elements of this habitat are considered to include: (a) Xeric climate, wind exposure and certain soil and drainage

factors that discourage introduced plants or herbivorous insects, and (b) permanent freedom from unrestricted browsing and trampling by feral or domestic livestock. Other elements needing additional research, such as types of organisms important for pollination, may prove to be primary elements as well.

Subsection 4(b)(8) of the Act requires, to the maximum extent practicable, that any proposal to determine Critical Habitat be accompanied by a brief description and evaluation of those activities which, in the opinion of the Secretary, may adversely modify such habitat if undertaken, or may be affected by such a designation. Such activities are identified below for this species. It should be emphasized that Critical Habitat designation will not affect most of the activities mentioned below, as Critical Habitat designation only relates to programs or activities conducted by Federal agencies, through Section 7 of the Act.

Any activity that would significantly disturb the soil, topography or other physical and biological components of the area where *Gouania hillebrandii* occurs could adversely modify its Critical Habitat. Livestock grazing and other land uses in the immediate vicinity of the population and in its surroundings should be examined carefully to prevent such modifications. Any effective conservation program might require measures such as fencing to prevent livestock grazing within the primary habitat areas, although to the extent that no Federal agency involvement is connected with the State leasing program, any such modifications of existing patterns of land use would be voluntary on the part of the State. Any direct, unselective removal of vegetation or alteration of wind exposure or moisture regime would probably adversely modify this habitat.

Subsection 4(b)(2) of the Act requires the Service to consider economic and other impacts of specifying a particular area as Critical Habitat. The Service believes that economic and other impacts of this action are not significant in the foreseeable future.

The Service has contacted the Hawaii Division of Forestry and Wildlife, and the Maui District Department of Education, which has jurisdiction over the land under consideration in this proposed action. Interested Federal and State agencies as well as other interested persons or organizations are requested to submit information on economic or other impacts of the proposed action. The Service will prepare a final assessment prior to preparing a final rule.

#### Available Conservation Measures

Subsection 7(a) of the Act as amended, requires Federal agencies to evaluate their actions with respect to any species which is proposed or listed as Endangered or Threatened. This rule requires Federal agencies to satisfy their statutory obligations with respect to this proposed species, that is, under Section 7(a)(4) to informally confer with the Service on any action that is likely to jeopardize this species or result in destruction or adverse modification of its proposed Critical Habitat. If the species is listed, Section 7 requires Federal agencies to insure that activities they authorize, fund or carry out are not likely to jeopardize the continued existence of this species, and to insure that their actions are not likely to result in the destruction or adverse modification of its Critical Habitat which has been determined by the Secretary.

The Act and implementing regulations published in the June 24, 1977, *Federal Register* (42 FR 32373) set forth a series of general trade prohibitions and exceptions which apply to all Endangered plant species. The regulations pertaining to plants are found at 50 CFR 17.61 and are summarized below.

With respect to *Gouania hillebrandii* all trade prohibitions of Section 9(a)(2) of the Act, as implemented by 50 CFR 17.61, would apply. These prohibitions, in part, would make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, or sell or offer for sale this species in interstate or foreign commerce. Certain exceptions would apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving Endangered species under certain circumstances. No trade in this species is known. It is anticipated that few trade permits involving the species would never be requested.

If this plant is listed as an Endangered species and its Critical Habitat designated, certain conservation authorities would become available and protective measures may be undertaken for it. These could include increased management of the species and its habitat, the provision of three-fourths Federal (and one-fourth State) funds for the species should Hawaii qualify for a cooperative agreement under Subsection 6(c)(2) of the Act, and the development

of a recovery plan for the species as specified in Subsection 4(g).

If listed as Endangered under the Act, the Service will review this species to determine whether it should be considered for the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere for placement upon its Annex, and whether it should be considered for other appropriate international agreements.

#### National Environmental Policy Act

A draft Environmental Assessment has been prepared in conjunction with this proposal. It is on file in the Service's Pacific Islands Area Office, 300 Ala Moana Boulevard, Room 6307, Honolulu, Hawaii 96850, and may be examined by appointment during regular business hours. A determination will be made at the time of a final rule as to whether this is a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969 (implemented at 40 CFR Parts 1500-1508).

#### Public Comments Solicited

The Service intends that the rules finally adopted be as accurate and effective as possible in the conservation of Endangered species. Therefore any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, private interests, or any other interested party concerning any aspect of this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Biological or other relevant data concerning any threat (or the lack thereof) to the species included in this proposal;

(2) The location of any population of *Gouania hillebrandii* and the reasons why any habitat of this species should or should not be designated as Critical Habitat;

(3) Additional information concerning the range and distribution of this species;

(4) Current or planned activities in the subject area and the probable impact of such activities on the area designated as Criteria Habitat; and

(5) The foreseeable economic and other impacts of the Critical Habitat designation on federally funded and authorized activities.

Final promulgation of a rule on *Gouania hillebrandii* will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of the proposal. Such requests should be made in writing and addressed to the Pacific Islands Administrator (see ADDRESSES).

#### Author

The primary author of this proposed rule is Dr. Derrall Herbst, U.S. Fish and Wildlife Service, P.O. Box 50167, Honolulu, Hawaii (808/546-5615). Status information and a preliminary listing package were provided by R. Alan Holt, Department of Botany, University of Hawaii at Manoa, Honolulu, Hawaii. Drs. Paul A. Opler and George E. Drewry of the Service's Washington Office served as editors.

#### References

Doty, M.S. and D. Mueller-Dombois. 1966. Atlas for biogeology studies in Hawaii Volcanoes National Park. Hawaii Botanical

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Engler, A. and K. Prantl. 1973. Die natürlichen Pflanzenfamilien, 2nd ed. (H. Harms, editor). 20d: Rhamnaceae, by K. Suessenguth, pp. 1-173. Berlin.

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Hobdy, R. 1980. Threatened and endangered species action plan for *Gouania hillebrandii*. Maui District, State of Hawaii Division of Forestry and Wildlife. Unpubl. rept.

Holt, R.A. 1982. Status report on *Gouania hillebrandii*. Report on contract 14-16-0001-79096 to U.S. Fish and Wildlife Service.

St. John, H. 1969. Monograph of the Hawaiian species of *Gouania* (Rhamnaceae). Hawaiian plant studies 34. Pacific Sci. 23(4):507-543.

#### List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

#### Proposed Regulations Promulgation

#### PART 17—[AMENDED]

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter I Title 50 of the U.S. Code of Federal Regulations, as set forth below:

1. The authority citation for Part 17 reads as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531, *et seq.*).

#### § 17.12 [Amended]

2. It is proposed to amend § 17.12(h) by adding, in alphabetical order by family and genus, the following to the list of Endangered and Threatened plants:

Species			Historic range	Status	When listed	Critical Habitat	Special rules
Scientific Name	Common Name						
Rhamnaceae—Buckthorn Family:							
<i>Gouania hillebrandii</i>	None		USA(HI)	E	NA	17.96(a)	NA

3. It is proposed to amend § 17.96(a), plants, by adding the Critical Habitat of *Gouania hillebrandii* as follows:

#### § 17.96 [Amended]

#### Critical Habitat of *Gouania hillebrandii*

*Gouania hillebrandii*: Primary constituent habitat elements are considered to be

climatic and edaphic factors that discourage introduced plant competitors and insect pests, and freedom from unrestricted browsing and trampling by domestic or feral livestock.

Hawaii, Maui Island, Maui County, Lahaina District, two zones located as follows:

(1) Pa'upa'u Zone, Ahupua'a of Kuia. The

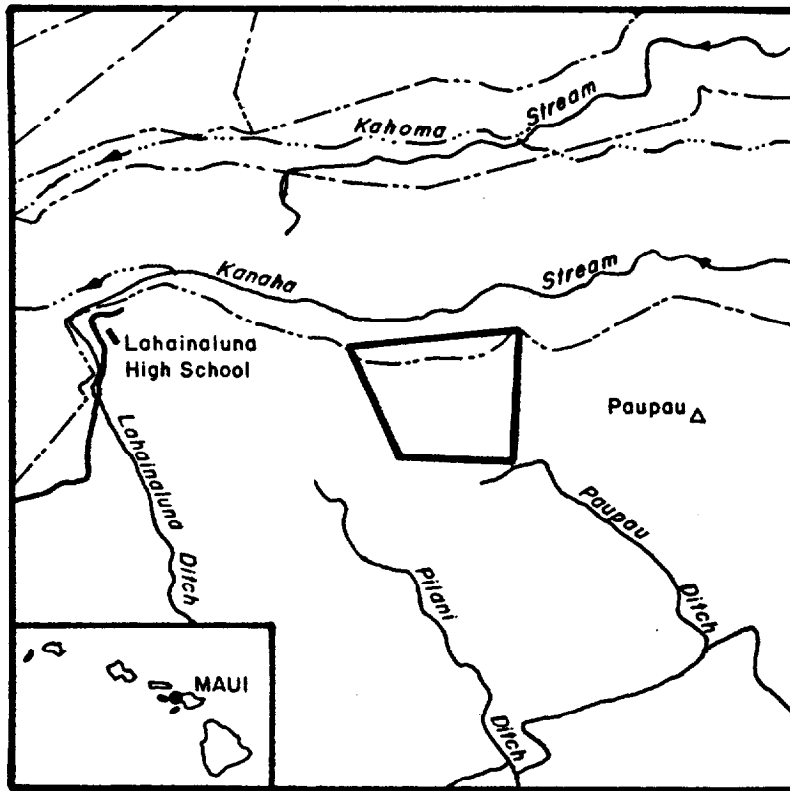
following Universal Transverse Mercator (UTM) designations form the corners of the quadrangular Pa'upa'u habitat area:

NW: 0744123121

NE: 0744723122

SW: 0744223118

SE: 0744723117



June 9, 1983.

J. Craig Potter,  
Acting Secretary, Fish and Wildlife and  
Parks.

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(2) Lihau Zone, Ahupua'a of Kuia. This zone consists of three circular areas having radii of 0.1 mile on the western slopes of

Lihau Mountain, one centered at Pu'u Hipe (near UTM 0746823070), one at UTM 0747723063, and the third at UTM 07472230

